

# Benefits of Burning

Records suggest that Native Americans used fire to encourage herbs to grow and to open the forest for hunting. Below are some of the reasons prescribed burns are used today.

## 1. Burning helps new plants to grow.

Can you name a tree that needs fire for its cones to open? (hint: check inside of brochure)

How many different types of plants can you count on the forest floor?

## 2. Burning controls invasive plants.

What does “invasive” plants mean?

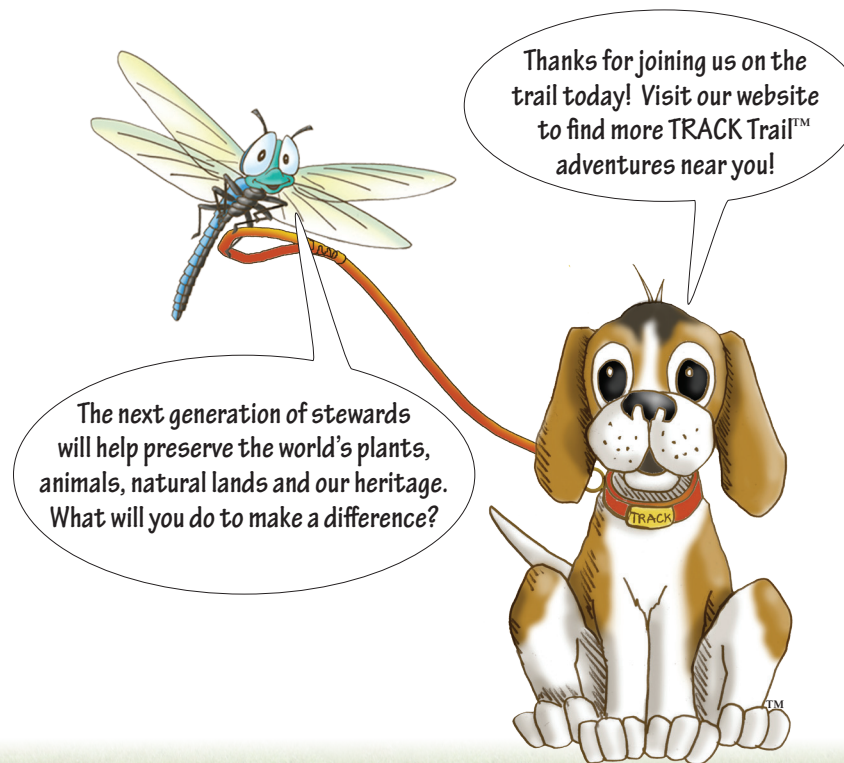
Have you seen any plants today that appear to be invading the forest?

## 3. Burning reduces fuel so that wildfires don't spread.

What provides fuel for a wildfire to continue burning in the forest? (hint: check inside of brochure)

How would a wildfire affect animals and people if it spread too far?

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# Fire on the Mountain

Did you know that wildfires have occurred naturally at Pilot Mountain for thousands of years? Historically, a wildfire occurred in this region every 5 to 7 years. The fires would last until they ran out of trees and shrubs to burn, or were put out by rain.



Today, wildfires are controlled for safety. Sometimes fires are prescribed, like a doctor prescribes medicine, for the health of a forest.

**Use this brochure** to discover how fires can benefit a forest and how you can tell if there has been a fire in a forest!



# Smoke Signals

How can you tell if a fire has occurred in a forest? Look for the following signs of fire along the trail.

## ☐ Serotinous Pine Cones

Serotinous (*Ser-OTT-in-us*) cones are only found on trees that are adapted to fire, such as pitch, shortleaf, and table mountain pines.

Serotinous pine cones do not open until a fire melts the glue that holds the scales together.

This way the seeds will drop when the forest floor is burned clear and the seedlings have plenty of room to grow.



pitch pine cone

## ☐ Stump Sprouts

Stump sprouts are a method of regeneration (regrowth) of a plant after a fire. Stump sprouting exists in trees and shrubs such as bear oak, scarlet oak, mountain laurel, Catawba rhododendron, and other species. The ability to sprout from the trunk is common in hardwoods but rare in conifers.



## ☐ Fire Scars on a Tree

A tree with a fire scar usually looks like it has an upside-down “V” cut into the base of the trunk. The scar is created when the fire burns fuel (dry leaves, needles, and shrubs) at the base of the tree and chars the layers beneath the bark. Look for more trees with fire scars. Are the scars on the uphill side or downhill side of the trees?



## ☐ Pine Sprouts

After a fire, the mineral soil is exposed and competing plants are cleared to allow pine seedlings to sprout. Without fire, trees such as pitch, shortleaf, and table mountain pines would eventually vanish from the landscape.



## ☐ Epicormic Branching

Epicormic (*ep-uh-CORE-mick*) branches are shoots that grow directly from the trunk of a tree. For example, dormant buds buried deep in the thick bark of a pitch pine can be seen sprouting to life after a fire or other injury to the crown (top) of the tree.



epicormic branches on shortleaf pine

## ☐ Fire Flowers

In addition to the trees and shrubs mentioned earlier, there are certain wildflowers that are adapted to grow in soils that are cleared and renewed by fire. Below are a few examples. Can you find any of these blooms along the trail in the spring or summer?



pink lady's slipper



Schweinitz's sunflower



ash-leaved golden banner

## ☐ A Stump with Fire Scars

(Hint: look in the visitor center.) When a tree that has been damaged by fire is cut down, you can often see fire scars in the tree's rings. Sometimes you can even tell how old the tree is and how many fires it has endured through its life.



fire scars